

Remarks

Claims 1-32, 36-52 and 57-61 are pending in this case. Claims 53-56 are canceled herein. New claims 57-61 are added herein. No new matter has been added. Support for new claims 57-61 is discussed, for example, below.

Restriction

The Examiner has required restriction under 35 U.S.C. §121 as follows:

Group I: Claims 1-32 and 36-52, drawn to a method, classified in class 438, subclass 142.

Group II: Claims 53-56, drawn to a device, classified in class 257, subclass 510.

The Examiner states that the inventions identified by Groups I and II are distinct because unpatentability of the Group II invention would not necessarily imply unpatentability of the Group I invention, since the device of the Group II invention could be made by the processes materially different from those of the Group I invention.

Accordingly, the Examiner alleges that because these inventions are distinct for these reasons and have acquired separate status in the art as shown by different classification, the fields of search are not co-extensive and separate examination would be required, therefore restriction for examination purposes as indicated is proper.

Applicant respectfully submits that the present Restriction Requirement is moot in view of the present cancellation of claims 53-56. However, pursuant to 37 C.F.R. §1.143, solely in order to be responsive to the

Restriction Requirement, Applicant hereby elects with traverse the invention of Group I, claims 1-32 and 36-52, classified in class 438, subclass 142. Moreover, Applicant respectfully submits that newly added claims 57-61 are properly included in Group I, and, therefore, examination thereof is respectfully requested.

Further, Applicant hereby traverses the restriction requirement that a search to the inventions of Group I and Group II would be not be unduly burdensome.

Support for new claims 57-61

Claim 57: support for the 0.1 micron device size is given, for example, on Page 41, lines 29-30; and the nanometer accuracy on Page 19, line 11; and Page 20, lines 24-26. The remainder of the claims is similar independent claim 36.

Claim 58 is supported, for example, by the original specification at Page 66, line 25 to Page 67, line 5.

Claim 59 is supported, for example, by the original specification at Page 4, lines 4-5 and Page 5, lines 26-29.

Claim 60: a closely controlled, thin insulating gate layer having a low defect density; "less than 40 nm thick" is disclosed in independent claim 1, lines 4-5; nanometer accuracy" is given on Page 19, lines 10-17; "right insulating gate layer material, interface, and structure" are supported at Page 7, lines 5-7 and Page 3, line 29 to Page 4, line 1; and multi-dimensional arrays given on Page 37, lines 27-28; and operating modes on Pages 38, lines 15-19 and Page 4, lines 11-16.

Claim 61: shallow rectifying barrier depth is disclosed on Page 9, lines 16-18; "atomic engineering" supported at Page 7, lines 7-10; "defect-free, suitably

high dielectric constant material and uniformly put down with required stability, interface state characteristics, and channel mobility" are supported at Page 7, lines 25-28 and 13-16; rounded thin film form bottom curvature is supported at Page 18, lines 23-25, and on Page 29, lines 8-11; "to tolerate subsequent processing and temperature cycling," is supported at Page 7, lines 11-13.

Conclusion

Applicant respectfully requests that the claims are in condition for allowance, and an early notice to that effect is respectfully requested.

Please direct any questions concerning this Response to Applicant's undersigned representative.

Respectfully submitted,



Keith R. Lange  
Reg. No. 44,201

FOR:

Matthew A. Pequignot,  
Reg. No. 43,851

Hall, Priddy, Myers, Vande  
Sande and Pequignot  
10220 River Road,  
Suite 200  
Potomac, Maryland 20854  
Telephone: 301-983-2500

Date: 10/13/05